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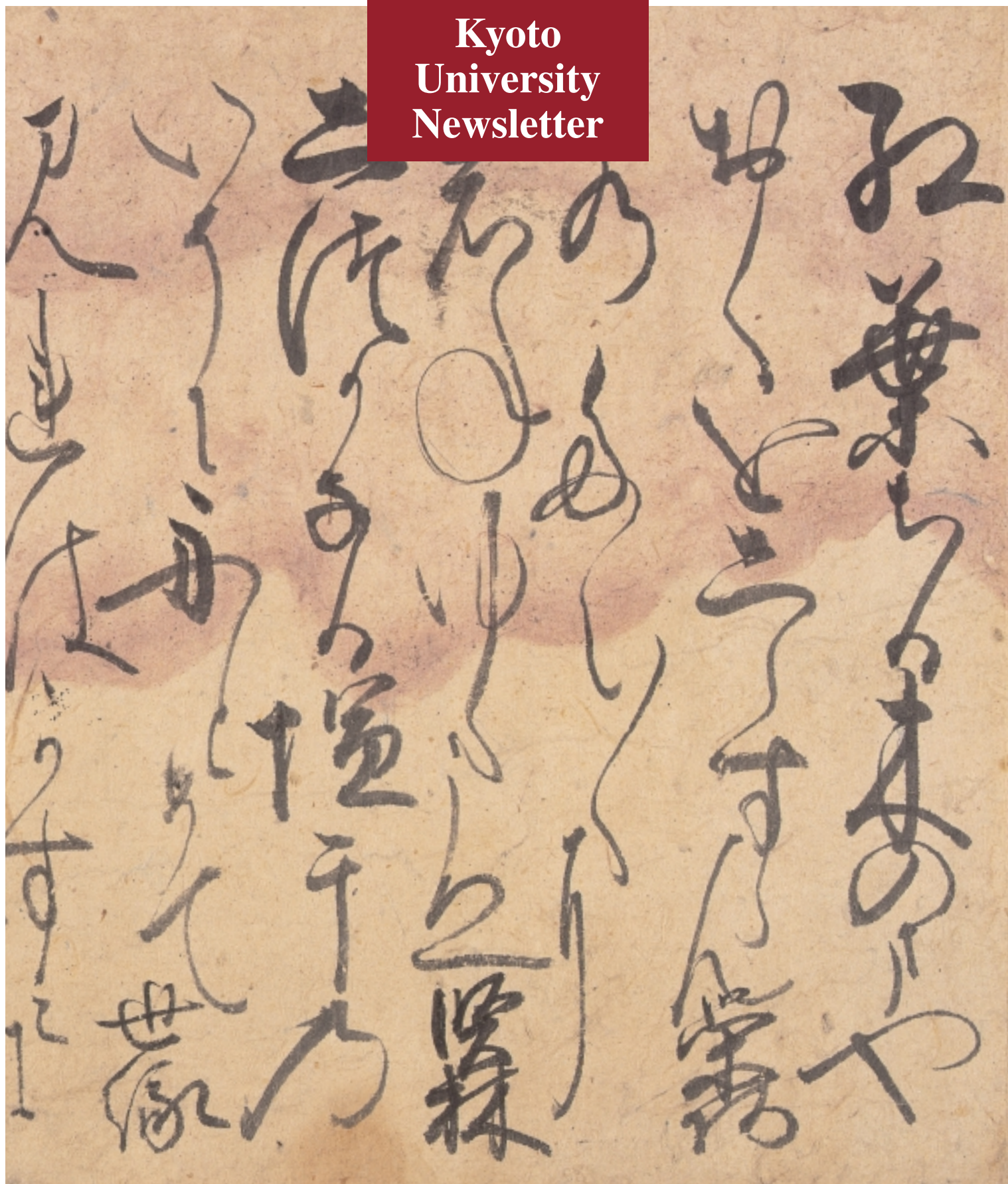
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楽友

Raku-Yu

Kyoto University Newsletter



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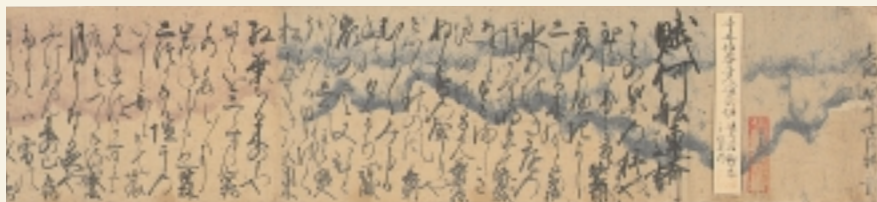
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We are pleased to send this second issue of *Raku-Yu* to all readers who are interested in the movement at Kyoto University. This issue includes a report on our future vision, three forefront activities of research with two feature articles, details of several activities by international students, and an essay from a visiting research scholar. As you may be well aware, Kyoto is rich in the history and nature that cultivate the sciences and humanities in our university. This enriched environment serves to enhance the unique and precious nature of the university. The idea of harmonious coexistence is sure to grow in such fertile ground. You may see an example of this with all living cells in the article by Prof. Shimizu. The stone monument for microorganisms suggests that we need other livings to maintain our Earth. This summer in Japan was extremely hot and long—there were more than 50 continuous days during which the highest temperature was over 30°C. While areas of Europe and China suffered severe floods, several districts in Japan faced water shortages. However, the season is gradually changing. Just as the *Gion Matsuri* marks the beginning of the hot season, the *Gozan Okuribi* suggests that the cool season will soon come. We live in Kyoto, with four seasons and many memorial events. We hope that our selected cover photography of *renga* "linked verse" portrays the autumn in Japan. It is our pleasure if this *Raku-Yu* provides you with a new discovery of Kyoto University. Please feel free to contact us with any comments or advice, we will be happy to receive your ideas.

Fumihiko Sato, Associate Editor, The Editorial Committee of *Raku-Yu****Fusu Nanifune Renga*, Renga-style Poems by Seicho, Sogi, et al.**

Handscroll, Hand-written, manuscript, 1 volume, 15-16th century

The *renga* or "linked verse" is a poetic form that dates back to ancient times in Japan. First one poet composes a *choku* or long block consisting of 17 syllables (in the 5-7-5 format traditionally used in *waka* poems), then a second person composes a 14-syllable *tanku* or short block (in 7-7 format). After this, additional *choku* and *tanku* are added alternately, based on associations formed from what has come before. In this way a group of friends can compose a long poem in alternating segments. The *renga* is a cooperative enterprise in which the participants take turns creating and appreciating the creativity of their peers. It is like a free association game in which the interest arises from the improvisational skill and changing ideas exhibited in the linked blocks. The *renga* is a poetic form with few analogues elsewhere in the world. It attained great popularity in the middle ages (13th to 16th centuries). A large number of treatises expounding the principles of the *renga* were published, and a number of detailed rules were established. Sogi, whose work appears in this volume, was a great poet who contributed to the refinement and perfection of the *renga* as a literary form.

The cover of the present volume is decorated with a *renga* composed by Sogi and some other poets on the occasion of the opening of a thatched hut that served as his studio in 1476. The fluent and forceful calligraphy is said by some to have been executed by Sogi himself. The black brush strokes and colored writing paper combine to create a lively impression. It almost seems to convey to us the excitement felt by those who were there. The calligraphy reproduced on the cover consists of the four blocks in Japanese on the right above. The phrases "The trees shedding their red leaves" (紅葉ちる, at the beginning, and "The wild geese flying through the hazy sky" (雁そつらなる), in the fourth block, are expressions symbolizing the transition from autumn to winter in Japan.

URL: <http://ddb.kulib.kyoto-u.ac.jp/tenjikai/2000/renga.html> (Japanese only)**Editor in Chief**

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A Note on Order of Names

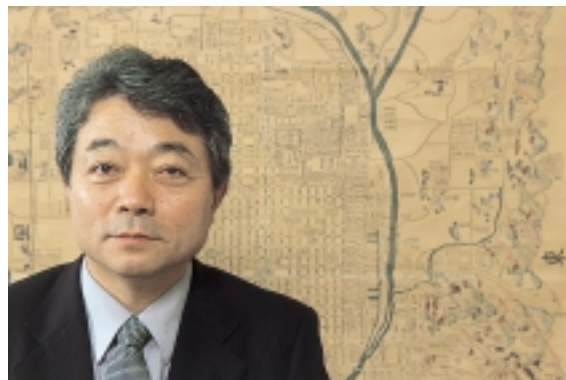
As a general rule, names appearing in *Raku-Yu* are written in given name/family name order.



This name was taken from the assembly hall called "Raku-Yu Kaikan" that commemorated the 25th anniversary of the founding of Kyoto University.

Akihiro Kinda Born in 1946 in Toyama Prefecture. Prof. Kinda graduated from Kyoto University, Faculty of Letters in 1969 and obtained his MA and D.Litt. from Kyoto University in 1971 and 1993 respectively. He was an associate professor from 1987 to 1994, and became a full professor in 1994. He has been the Vice-President of Kyoto University since Dec., 2001.

Dr. Kinda's specialized fields of research are human and historical geographies. Throughout his career, he has continued to present a new perspective of Japanese history based on knowledge gleaned from old maps, principally ancient specimens but also ranging to the modern period. In the background of the photo on the right can be seen an old map of Kyoto that he owns. This dates back to the 17th century—the Edo period—and was printed from wood blocks and then hand tinted. In the map Kyoto is presented as a microcosm, surrounded on all four sides by mountains and rivers. It is precisely because of the location in Japan's thousand year capital that Kyoto University possesses its unique character. In this time of constant transition, this fact is what Dr. Kinda always has in his mind as a scholar of historical geography.



Kyoto University in a Period of Transition

Today Kyoto University is a leading research-oriented university, with 15 graduate schools offering 81 major programs, 10 faculties (undergraduate departments), 12 research institutes and 21 research centers. The university currently has approximately 13,500 undergraduates, 8,000 graduate students, and around 3,000 academic members. In addition to the two main campuses—the Yoshida Campus located in the northeast part of the city of Kyoto and the Uji Campus to the south of the city—the university operates numerous facilities throughout Japan and overseas. It is presently moving forward with the construction of a new campus—the Katsura Campus—in the western part of the city of Kyoto that will be equipped with the latest facilities.

Commencing from the 2004 academic year, the Japanese government has decided to convert all of the country's national universities into independent corporate bodies. The national universities, for their part, have agreed to this initiative. However, the policy is a response to current social phenomena, including changes in the nation's financial structure and a rapid shrinkage in the population of the age group eligible to enter university, and cannot necessarily be said to be based on any intrinsic requirements of research and education. Nevertheless, the shift to corporate body status will offer some advantages. Kyoto University is presently engaged in a detailed examination of the type of system that must be built in order to meet the challenges and opportunities the new status will

bring.

Kyoto University, the secondly established national university in Japan, is located in the city of Kyoto since 1897. Kyoto was the capital of Japan from its founding in 794 through to 1868, and its importance as a cultural center can hardly be exaggerated. It is therefore not surprising that in its lovely natural setting, as well as the rich accumulation of cultural traditions in Kyoto, and with the enterprising spirit sprung from its long history, Kyoto University belongs in the front rank of the world's leading universities. Academic staff and graduates of the university have produced numerous world-class works in the natural, social and human sciences. Many of these people are renowned names in their fields, including five Nobel laureates.

In this period of transition, Kyoto University must work to restructure its system for nurturing a spirit of in-depth, genuine, and sophisticated research, with a strong commitment to a broad outlook, while developing still further the atmosphere of free academic thought that has been its hallmark since its establishment. The mission of Kyoto University is to serve as a place where research and education at the world's highest level takes place in many different academic disciplines, and to enhance its function and role as an integrated university engaged in general research and educational pursuits on the world stage.

Akihiro Kinda
Vice-President of Kyoto University

金田章裕

Towards Universal Bioethics

— In search of the respect for human dignity and human rights —



Ryuichi Ida

- Born in 1948.
- Graduate of the doctoral program, Graduate School of Law, Kyoto University
- LL.B. and LL.M., Kyoto University, D.E.A., France
- Professor, Graduate School of Law, Kyoto University
- Chairperson, International Bioethics Committee, UNESCO
- URL <http://www.law.kyoto-u.ac.jp/ida>

"I find the same values in bioethics and international law, so being involved with both suits me nicely and feels natural."

Listening to Prof. Ida speak in his eloquent, calm way one senses the reality of one of his own comments: "The formation of bioethics is a process of persuasion." He serves as an advocate for causes he believes in by encouraging the participation of ordinary citizens in debates. That is because they originally donated tissue samples for research on the human genome and should therefore reap the benefits of that project. In addition, with regard to the Universal Declaration on the Human Genome and Human Rights (as adopted in 1997), Prof. Ida feels that it represents "minimum common principles shared by all humankind" and refuses to compromise on his stance that the diversity of human values must be respected. He feels that what is needed is the establishment of a mature relationship between scientists and the general public. As a student in France 30 years ago he visited the old battlefields of two world wars. This was the origin of his determination to study international law.

Today he is actively working too as a consensus builder in the hope of building stronger connections between cutting edge scientific research and human happiness.



Prof. Ida has served as on UNESCO's IBC since 1996 and was appointed Chairperson in 1997. He was awarded *Palmes Academiques* by the French Government in November 2001 for his achievements.

The progress of life sciences is one of the leading phenomena of the 21st Century. It represents at the same time a victory for human intelligence and a grave challenge for human life. The concept of the life of human beings comes to question through tremendous advancements of life sciences and bio-medical and, in particular, gene technology. *"Is Humanity in progress?"* Such was the question set by an eminent professor of international law in 1947. "Yes!" certainly. We know how much medical and pharmaceutical developments have contributed to our struggle against various difficulties in human health. However, today, the question should be *"Isn't Humanity becoming the prey of scientific progress?"*. Indeed, the more the scientific advances we realize, the more the life of human beings recedes from nature, and the more arises the questions of life. Manipulation of human life, commercialization of the human body, instrumentalization of the human person; these labels are used so as to show the ethical stakes of bio-medical science and technology.

A couple, formerly diagnosed sterile, has today possibilities to have a child with procreative assistance. An embryo is now possible to be tested in a pre-implantation stage, in order to find genetic difficulties, and then possibly in order to be selected. A young man, apparently in good health, is susceptible to be diagnosed as having Huntington disease through genetic testing. A child, lacking in the adenosine deaminase (ADA) that is indispensable for survival, would be treated with genetic therapy. The genetic data of each

individual will result in the so-called individualized medicine, while it might be abusively used for discrimination. Human embryonic stem (ES) cells, derived through destruction of the embryo that has potential of life, are expected to give rise to regenerative medicine. The application of cloning technique to humans is on the edge of two slopes; to produce a so-called "cloned baby", or to obtain an efficient regenerative medicine using stem cells derived from a cloned embryo.

These are only examples of the results of research and application of today's life sciences. They show us how much the distinction is now vague in our society between life and death, between the normal and the abnormal, between the just and the unjust. Facing these new factors of life, what we are pursuing is human dignity and its corollary, which is the respect for human rights.

Forming principles and guidelines for bioethics based on these two key concepts is an urgent task in this contemporary world. Generating discussions, drafting instruments and



Prof. Ida's office is in the Law Building, an older building with a special atmosphere.



applying principles and norms both at the international and national levels are done on the basis of the knowledge and understanding of international law (Prof. Ida is teaching international law and organizations). International bioethics is a kind of "applied international legal studies": bioethics is a field both of reflection on the value of human life and of application to the practical sphere.

My main contribution is the work on the International Bioethics Committee (IBC) of UNESCO. The Universal Declaration on the Human Genome and Human Rights is the greatest contribution of the IBC and the first on universal bioethics. We

should not forget IBC's other precious reports on cutting-edge issues, such as human ES cells or intellectual properties relating to human genome research. Drafting a new declaration on genetic data and consideration of a universal instrument for bioethics are currently the main assignments there. If being the chairpersonship of the IBC since 1998 is a heavy burden for a researcher of international law, the goal is always the same for international law and bioethics. Both are social norms for promoting the values and the welfare of humanity and of each individual. "A new perspective for international law", one might dare say.

Upon such conviction, my research and contributions to the practice are currently done in various domains. Besides my participation in the IBC, the research project of a multidisciplinary team into

"Dialogues and Promotion on Bioethics in Asia" is a large international project of three years that commenced in 2001. Supported by Ministry of Education, Culture, Sports, Science and Technology (MEXT) from its fund for promotion and coordination of science and technology, it will end with an Asian Conference on Bioethics in Kyoto in 2003. While the ultimate aim of this project is to enable the Asian values on human life to be understood and reflected in universal bioethics, we are trying first to expand reflections on bioethics among Asian countries and peoples, and to understand mutually the problems we have in each Asian nation in this field. Also significant is my contribution to the bioethical norm making and application at national level, such as at the Bioethics Investigation Panel of the Council for Science and Technology Policy as well as at the Special Committee on ES Cells Research.

Our approach might be characterized as a combined theory and practice approach. We are hoping to discover a new dimension in research into social science.

Prof. Ida's office with a number of precious books.



The booklets on the Universal Declaration and the Basic Principles of which Prof. Ida was involved in the adoption and the draft.

Discovering and developing the unique functions of microorganisms and creating industrial applications for them

— How microorganisms assist us in our daily lives —

Japan, a country rich in microbial resources

It is often said that Japan is a country with few natural resources. But you may be surprised to learn that when it comes to microorganisms Japan is one of the most resource rich countries in the world. It is estimated that a single gram of soil contains between 10 million and 100 million microorganisms. Japan is extremely varied geographically, hence an extremely wide variety of microorganisms can be found here. What's more, these microorganisms undergo variations throughout the year as the seasons change. It is considered highly likely that just by looking for them we will be able to discover microorganisms with superior capabilities or previously

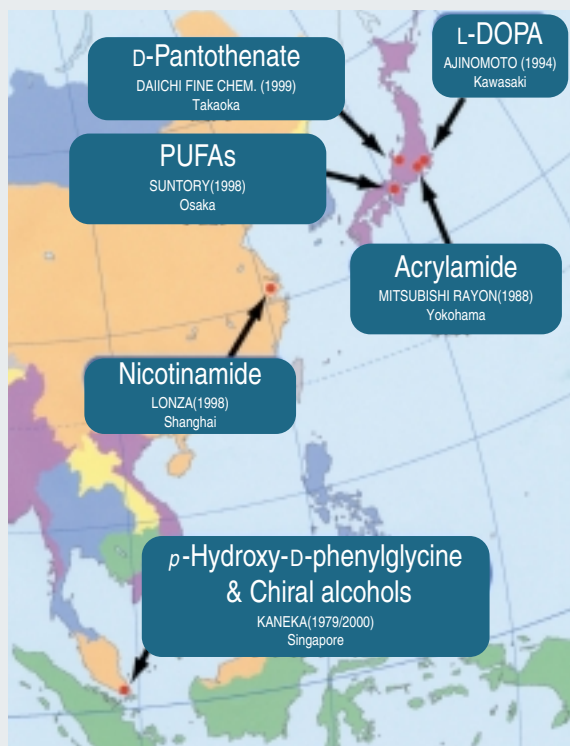
unknown abilities. The richness of our microbial resources is one of the reasons why in the field of applied microbiology, Japan is today one of the most advanced countries in the world.

At the Laboratory of Fermentation Physiology and Applied Microbiology "Hakko (fermentation) lab" here at Kyoto University we are working to discover and develop the latent possibilities of microorganisms. The aim of our research is to turn these possibilities into useful applications.

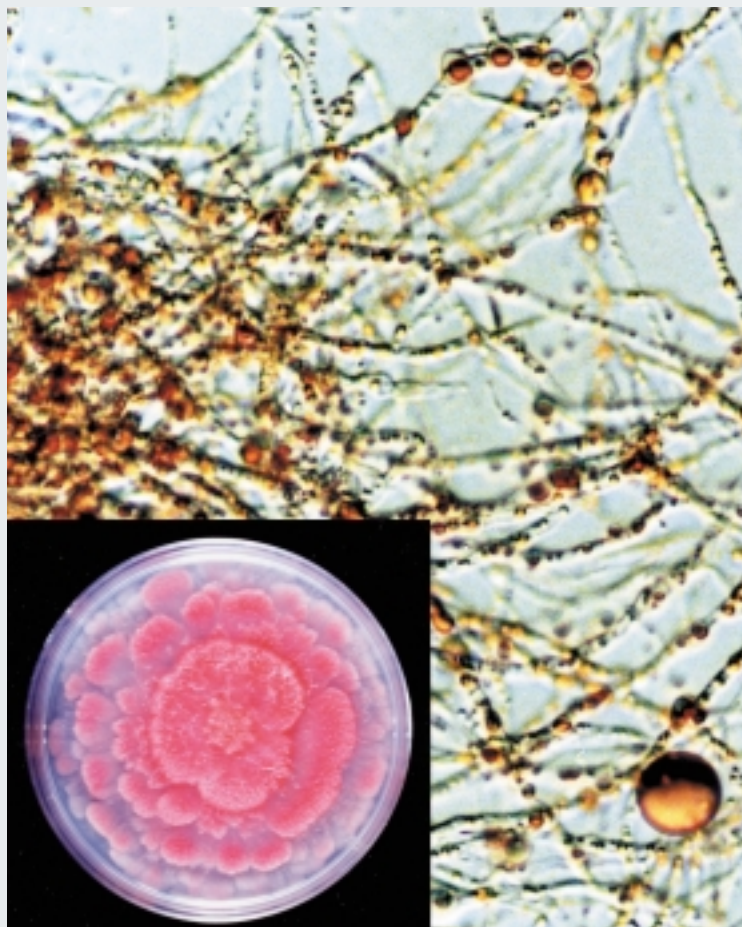
The Kyoto University "Hakko lab" processes, which were developed through collaboration with industries, are now used all over the world. They are called as microbial factories (see the map below).

1. Using microorganisms to produce edible oil

Until recently no one realized that microorganisms are a promising source for abundant quantities of polyunsaturated fatty acids (PUFAs), which are used in medicines and functional food products. At the Faculty of Agriculture here at Kyoto University we discovered that a filamentous fungus, which we isolated from among the microorganisms found in earth taken from the campus, produces prodigious quantities of oils containing arachidonic acid. With this discovery as a starting point, we conducted research employing methods from metabolic engineering and molecular biology for controlling cultures and breeding mutant strains. Finally, we achieved



"Microbial factories" are used all over the world.



Giant colony of *Mortierella alpina* on agar plate containing tetrazolium salt (lower left). Oil drops of polyunsaturated fatty acids accumulated in the mycelia of *Mortierella alpina*.

the ability to produce a variety of PUFAs containing selected oils in large quantities. We call these unique oils produced by microorganisms "fermentation oils."

2. Developing new tools for chiral technology

We are making use of the excellent stereospecificity of enzymes to develop methods for producing optically active compounds. For example, we discovered in fungus "lactonase," a new enzyme that hydrolyzes lactone rings stereoselectively. Using this reaction, we were able to develop a large-scale optical resolution method for pantolactone, a synthetic intermediate material of pantothenic acid (with a capacity of 3,000 tons per year).



菌塚, the stone monument for microorganisms who gave their lives as research specimens. It was constructed in the precincts of the Manshuin temple in north portion of the city of Kyoto.



3. Leading the way to green chemistry

"Nitrile hydratase," an enzyme discovered by "Hakko lab", efficiently performs hydration reactions with nitrile compounds. For example, it has been used since 1988 in an industrial process (with a capacity of 30,000 tons per year) for producing acrylamide from acrylonitrile. This marked the first example of the use of a biocatalyst in the production of commodity chemicals. It has been the subject of a great deal of attention worldwide as a successful example of environmentally friendly green chemistry.

Prof. Shimizu providing guidance in the lab. The overall research field of "Hakko lab" is broad—from molecular biology to fermentation physiology, so research activities are divided between several rooms. It is difficult that all members of the lab get together in the same place.



Sakayu Shimizu

- Born in 1945.
- Graduate of the doctoral program, Graduate School of Agriculture, Kyoto University
- Ph.D., Kyoto University
- Professor, Graduate School of Agriculture, Kyoto University
- URL <http://www.hakko.kais.kyoto-u.ac.jp/lab-e/index-e.html>

"Our laboratory has a will of its own. Perhaps this more than anything else sets us apart from other labs."

"Hakko lab" has a tradition of performing research even in fields somewhat removed from its area of specialization if they are "useful and interesting." It is known popularly as the "sesame lab" because it was here that the unique properties of sesame oil were accidentally discovered in the process of tests on the use of microorganisms in the production of fermentation oils. The "open sesame" that opened the doors of our sesame research was provided by sesamin, a substance present in sesame seeds in minute quantities. There are already products on the market in which sesamin is used as a food supplement for its healthful properties. Prof. Shimizu says that the ultimate goal of the lab's work is to produce results that will contribute to people's lives. As a result, the lab has a long history of collaboration with industry. Though nowadays global standards hold sway, one can glimpse in the gentle face of Prof. Shimizu, who feels that one's own traditions and ways of doing things should be the basis for one's values, something of the spirit of a craftsman who refuses to be distracted by passing fads.



In the lab can be seen a framed motto in Chinese characters: 彊不息. It is a quotation from the / *Ching*, the Confucian Book of Changes, meaning "Continue to work hard and you will receive your reward without fail." The students who work in the lab inherit a certain perspective on human philosophy through their research work.

Kyoto University Library

Since it opened in 1899, the Kyoto University Library has been the central library facility on the university's campus and has played an essential role in promoting the ideal of "autonomous learning" at Kyoto University. Current holdings total 845,717 items. In addition to the conventional functions of providing books and other materials for perusal in the reading room or outside loan, the library plays an important role as a manager of intellectual resources in other ways too, such as maintaining a collection of rare books and manuscripts that is disclosed to the public. In the years ahead the library will continue to work to enhance its functions in order to provide even better support for liberal arts education, and the scholarly and educational needs of the students and faculties. In 1998 a Digital Library service was launched that allows users to retrieve information via an Internet web site. Work is also underway on the digitizing of images of rare materials from the library's collections for publication on the web.



Main entrance and main counter

Functions related to the checkout of materials and reference services are concentrated at the main counter on the first floor. Each day the main counter serves an average of 2,500 patrons (figure for 2001 academic year).



Second floor reading room, open stacks

There are approximately 1,100 reading room seats on the first and second floors. The open stacks house some 90,000 books.



Rare book collection

The rare book collection contains a large number of precious books and scrolls, including a copy of the *Konjaku Monogatari* that has been designated a national treasure.



Underground stacks

The floor space of three basement floors is occupied by underground stacks. This enormous collection includes foreign books, Japanese books, periodicals, and microfilms.

Digital Library on the web

The Digital Library provides online access to academic information as well as digitized images of precious materials. Plans call for an English interface to be implemented in stages, beginning in April 2003.



Johei Sasaki

- Born in 1941.
- Ph.D., Kyoto University
- Professor, Graduate School of Letters, Kyoto University
- Director, Kyoto University Library
- URL <http://www.kulib.kyoto-u.ac.jp>

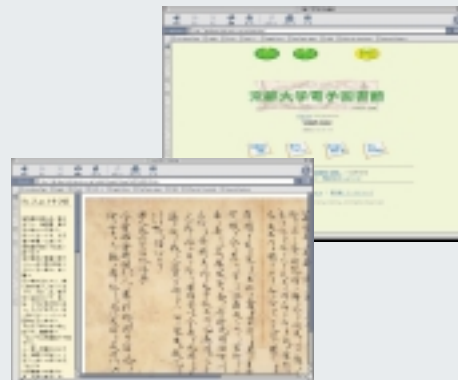
"University libraries function as the public face of universities. Improvements to the library are an effective way to strengthen the intellectual foundations of the university. We need to provide support for electronic media, but at the same time we hope to further improve our collections of materials in conventional paper media."

Opening hours

9:00 a.m. to 9:00 p.m., Monday through Friday
10:00 a.m. to 5:00 p.m., Saturday and Sunday
9:00 a.m. to 5:00 p.m., Summer and winter vacation periods

Reference services

9:00 a.m. to 12:00 p.m. and 1:00 p.m. to 4:45 p.m., Monday through Friday



URL <http://ddb.libnet.kulib.kyoto-u.ac.jp/minds.html>



Student Lounge KI-ZU-NA opens

The Japanese word *kizuna* refers to bonds of friendship, affection, and trust that connect one person to another. It is hoped that the student lounge KI-ZU-NA, which opened in April 2002, will be a place where such bonds are fostered.

The building is situated to the west of the Center for Student Exchange in the southeast portion of the Yoshida Campus. Completed in 1916 and designated one of Kyoto University's historic structures, it formerly housed the Disaster Prevention Research Institute office and has since been renovated. The stone and brick exterior retains its original appearance, while the thoroughly redecorated interior has been divided into a reading room, an audio room, and a salon. The furniture and lighting fixtures were carefully chosen to create a comfortable and relaxing atmosphere.

On the day we visited, several people were already there, perhaps to escape the heat. An American sat at her laptop and worked on a report, a Swede was absorbed in a newspaper, and a Korean couple chatted pleasantly. Then a group of four young women appeared and started to discuss something with earnest looks on their faces. When we asked, they said they were making preparations for a presentation they were to give that afternoon on the theme of "Human Relations between Japanese and Non-Japanese." Three of the women—Natalia Panchenko (Russia),

Yo-Ui Han (Korea), and Iliana Todorova (Bulgaria)—were enrolled in the Japanese Studies Program on Japanese government scholarships. The fourth member of the group was Kaori Yamazaki (sophomore, Faculty of Agriculture), who was taking the same class as a common subject. She said that the others often ask her questions that take her by surprise. "I have rediscovered a lot about myself thanks to them; I find them very stimulating company," she noted. When we asked the members of the group, all of whom seemed to possess keen analytical skills, what they thought of KI-ZU-NA, they grinned and replied in unison, "It's wonderful!" Natalia added, "I find it very relaxing; it's like a little house."

Iliana said this was her first visit to KI-ZU-NA. Then she added, "I've recently gotten to know a Japanese guy with whom I seem to have a lot in common. We're planning to prepare for a Tibetan class together and this looks like a good place to do it."

The campus provides people with many chances to meet. Sometimes a passing meeting can turn into an important bond if given a little push—this is the role KI-ZU-NA is intended for. It is hoped that this small, relaxing place will be the starting point for larger exchanges among a widening circle of people.

(Date reported: July 22, 2002)



The reading room. Ms. Han says the large collection of Japanese language instructional materials are a big help to her. Newspapers are available in Chinese, English, Japanese and Korean.

The salon creates a relaxing impression with its soft lighting and furniture emphasizing rounded edges.



The vestibule



Natalia Panchenko (top left), Yo-Ui Han (top right), Iliana Todorova (bottom left), and Kaori Yamazaki (bottom right).

Establishment of Hall of Global Environmental Research and School of Global Environmental Studies as a Graduate School

From "Tower of Babel" to Hall of Learning
— an attempt to redefine contemporary scientific knowledge.

The Hall of Global Environmental Research and the School of Global Environmental Studies were jointly established in April 2002 as the sixth independent graduate school at Kyoto University. The global environmental problem is the single greatest issue that the accumulated human history to the twentieth century has left us. The aims of the new graduate school are to establish global environmental studies as an academic discipline and to train researchers and practitioners in that discipline. Its Japanese names *Chikyu Kankyo Gakudo* and *Gakusha* are quite unlike anything at any other university in Japan, and they were chosen to express the firm concept upon which the new Hall and School were founded: that overcoming the "Tower of Babel"-like situation that exists in the contemporary sciences is the first step toward the creation of global environmental studies. The new graduate school will bring together researchers from all fields—from the theory of culture to agriculture and industry, from

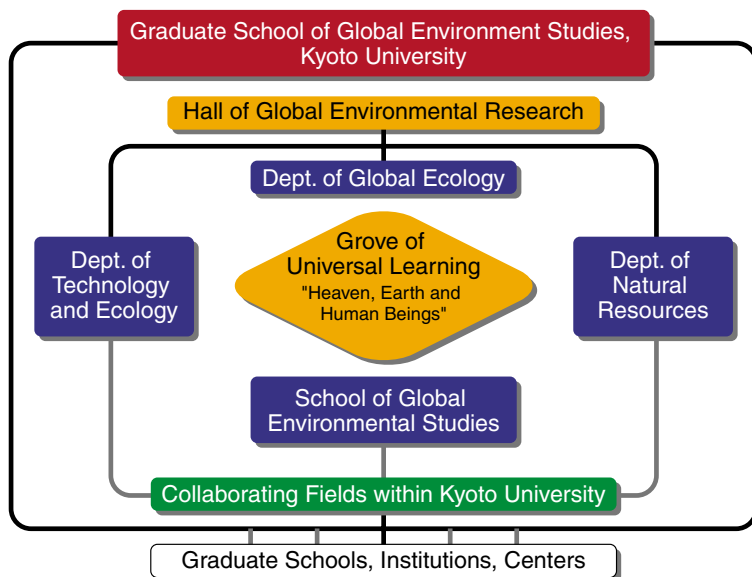
cutting edge science to mature traditional technology—and set out first of all to weave a terminological framework that will permit common understanding. Next, it will strive to forge a new structure for the presently fragmented state of scientific knowledge, based on an East Asian cultural perspective that pursues harmony between the work of humans and nature as the core goal. This attempt to create a new paradigm is now quietly taking shape in a corner of Japan's thousand-year capital.



Prof. Masaaki Naito, Dean of the Graduate School
 "Trying to persevere in attempts at global environmental studies, I was beginning to feel almost devoid of hope. But when the concept for this graduate school was proposed I felt that this will mean the creation of a new field of scholarship."

Hall of Global Environmental Research

One of the distinctive characteristics of the Hall of Global Environmental Research and School of Global Environmental Studies is that the research and education components of its organization are clearly delineated. This was done taking into account the different time spans required for these two types of activities. The research component, the Hall of Global Environmental Research, comprises three departments. Due to the character of academic studies of the global environment, it is necessary to secure researchers from a wide range of fields in a timely manner. To accomplish this a significant portion of the faculty consists of persons affiliated with more than one graduate school. This allows a high degree of flexibility in the structuring of the staff. All the researchers of the Hall of Global Environmental Research gather regularly at an "informal get-together on the global environment" that is held each month. This is the true "laboratory" where a common language is forged by scholars in different fields.



URL <http://www.adm.kyoto-u.ac.jp/ges/index-e.html>

This reception room is used for symposia and other meetings.



School of Global Environmental Studies

One important feature of the School of Global Environmental Studies is that its focus is divided between two distinct educational goals. These are represented by the Major in Global Environmental Studies (leading to a doctoral degree), which is designed to train researchers, and the Major in Environmental Management (leading to masters and doctoral degrees), which is designed to train practitioners. Students with backgrounds in many different scholarly fields study together. Many of the classes are conducted in English or in a discussion format. In addition, an oral interview and an English composition form the core of the entrance examination. Students are not assigned to any single professor's study group for the first half of the initial academic year in order to encourage them to develop a broad outlook. The Major in Environmental Management includes an extended internship component.

The class of Environmental Ethics and Education in the School of Global Environmental Studies. In contrast to the Grove of Universal Learning, this facility is brand new. Classes are taught in English and Japanese.



Mamiko Morinaga (right) was motivated to apply because of the internship system and English classes, and Iku Ro hopes to work at the World Bank someday.



Grove of Universal Learning

The Grove of Universal Learning is a research and education support organization whose Japanese name *Sansai Gakurin* is partly based on a phrase from *The Book of Changes*, one of the Five Confucian Classics. The organization hopes to generate ideas that will lead to the goal of bright harmony, on a global scale, between the components of *Sansai*, the traditional East Asian triad of Heaven, Earth, and Human Beings, through activities such as sponsoring symposia and seminars, and regular publication (beginning in 2003) of the English journal *Sansai, Journal of the Grove of Universal Learning*. The Grove of Universal Learning is sure to play a central role in shaping the graduate schools as a whole into a form closer to the ideal. It will be based in an elegant 90-year-old house in Japanese style that was once the official residence of the university president.



Prof. Toshio Yokoyama, Warden of the Grove of Universal Learning, says that it is essential to make contemporary scientific knowledge "indigenous" in many different languages.

The headquarters for the activities of the Grove of Universal Learning. The first common task at the Hall of Global Environmental Research was to refurbish this house.



"The Kyoto/Seoul Symposium on Linguistic Challenges in the Modern Sciences; First Movement" sponsored by The Kyoto University Foundation, Foundation for Research in Humanities, Kyoto University, and Seoul National University. The language for symposium is English, however, Japanese and Korean can also be heard extensively.

Dr. Jan van Bremen



Jan van Bremen

Center for Japanese Studies, Leiden University, The Netherlands

Visiting Research Scholar, Institute for Research in Humanities, Kyoto University

Dr. van Bremen has the quiet, composed aura of a Zen priest. He said gently and vigorously "I first visited Japan 30 years ago. Since then the researchers and students have not changed at all. What is different is the environment that surrounds them."

Towards a world of harmonious coexistence

In the opening essay of the first issue of *Raku-Yu*, Dr. Makoto Nagao, the President of Kyoto University, expressed the hope for a peaceful coexistence on earth to be realized in this century. In order to achieve that aim, he argued, the key principle of the 20th century, progress, needs to be changed. The new formula for the present century should become harmonious coexistence.

Universities can play a central role in that process. In order to achieve harmonious coexistence among societies in the 21st century, centers of learning must develop not only scientific technology. Foremost, they must develop the humanities as the very basis for cultivating and maintaining the cultural values that produce and support scholarship, arts, and sciences. As an institution that encourages international exchange with other universities in the world, Kyoto University can play a pivotal role. From the time of its establishment, the Institute for Research in Humanities has endeavored to play an international role for scholarship and learning. That aim is all the more urgent in view of the world situation today. The humanities play a useful role in healing the world by fighting racism, bridging the gaps between cultures, understanding the present in relationship to the past, and, in general, by stressing our common humanity as a subject for the broadest

possible study and interpretation. Human studies have much to contribute to the creation of a new world, one with more tolerance and less politically, ethnically, or religiously based suspicion and hatred, one which draws strength from human diversity and similarity, alike.

Kyoto University maintains an outstanding record in international relations and cultural exchange. Its Institute for Research in Humanities is a leading center for the building of the new world that is envisaged by President Nagao. The Institute welcomes scholars from every corner of the world. It initiates and intensifies the sort of academic exchange and human relations that contribute to the creation, maintenance, and blossoming of the world of harmonious coexistence that Dr. Nagao envisions. The Institute for Research in Humanities creates relationships between the practitioners of the humanities throughout the world. It enriches those that have sprung into life as a result of its programs and inaugurates a good many new ones. This work naturally advances the cause of harmonious coexistence. In the light of this ideal and these facts it is to be expected that the Institute will continue to receive the fullest support for its activities and work from the university and the body politic in the 21st century.



Institute for Research in Humanities

Dr. van Bremen adores Kyoto. He finds the way the town is surrounded by green mountains particularly beautiful. On this day, shortly before his return to his home country, for the first time ever he ascended to the roof of the Institute for Research in Humanities to survey the view of the town by twilight.



Ali Masoudi-Nejad

Laboratories and universities need to forge still stronger links.

Ali Masoudi-Nejad first became interested in plant genetics as a high school student. After earning a master's degree in plant genetics and breeding at Iran's Tehran University, he was appointed as a lecturer at Gilan University. Three years later he joined the plant pest and disease research institute (PPDRI) as deputy head of the newly established department of biotechnology. He was awarded a Japanese government scholarship, came to Japan in 1999, and now studies at the Laboratory of Plant Genetics, which has a worldwide reputation in that field. Before his arrival in Japan he knew almost nothing about Japanese culture.

This lab is rather old but it has a real atmosphere about it.

This is the lab where the world famous geneticist Dr. Hitoshi Kihara worked. Because of that researchers from all over the world come here to participate in joint research projects, and international students are eager to study here. I think it is a very stimulating environment. A friend of mine from Pakistan who once studied in this lab and now works for the Food and Agriculture Organization of the United Nations (FAO) recommended that I came here. That was what made me decide to enroll in Kyoto University—the establishment where five of the seven Nobel Laureates of Japan came from.

Tell us about the sort of research work you are engaged in on a day-to-day basis.

I am studying molecular genetics. We are developing new methodology for mapping genes in plants, which is very important in the post-genomic era. Additionally I am carrying out gene cloning of useful genes. We are also involved in chromosome manipulation in wheat and barley, a field in which my supervisor Prof. Endo is one of the pioneers. Every day I am here doing experiments from nine in the morning to almost twelve midnight. I also keep myself up to date with all new papers and journals that publish in my fields of study, and have regular discussions with my supervisor and fellow class members about my work. Supervisors are a great help, especially Prof. Endo, who provides me with direct

guidance and discusses various problems with me. I should not forget to mention also the great support from my other supervisor, Dr. Nasuda.

Prof. Endo: Respect for the autonomy of the student is our fundamental principle. Ali works hard and actively suggests new potential research themes. This makes me eager to help him out in any way I can.

What is one point that makes you happy you chose to study at this lab?

One thing I can point to is how the people here continue to work assiduously as long as the budget holds out. Also we are given the opportunity and financial support to present papers at international conferences, to publish in authoritative scientific journals, and to gain access to new technologies.

On the other hand, do you feel there are any problem points?

There is less contact between laboratories than there ought to be, and the system is still rather exclusive and old fashioned in some ways. For example, several different laboratories have had to separately purchase the same low-capacity equipment to fulfill the same requirement. In contrast, in other countries such as the UK, one large-capacity piece of equipment is shared by many laboratories. Their way of doing such things makes it possible to analyze a large number of samples in a shorter time at reduced cost.

Prof. Endo: Ali did joint research at a British lab last year, so he has experienced what he describes firsthand.

Yes, that's right. And it's not just within a single university that more cooperation is needed. Universities need to establish stronger bonds with other universities in Japan, and with universities outside of Japan as well.

Do you have many chances to come into contact with Japanese culture?

Yes indeed, I've attended different programs sponsored by the foreign student office of Kyoto University and Kyoto city council, including trips to different parts of Japan and home-stays in the countryside. There I lived with Japanese families in



Ali Masoudi-Nejad

Born in Iran in 1967.

Presently in the 3rd Year of a doctoral program at the Graduate School of Agriculture, Kyoto University.

Tanba and Ine-cho in the northern part of Kyoto Prefecture to experience what life in the countryside was like in Japan. Unlike in the city of Kyoto, they have large houses, big gardens and people there take things at a slower pace. I was also impressed by the natural beauty. You see, photography is my hobby. I took a lot of memorable photos during my trips and sight seeing.

What are your hopes and dreams for the future?

I hope eventually to return to Iran and establish a private laboratory to do work in plant genomics and biotechnology. I would also like to work with NGOs involved in preserving our cultural heritage and children's education.

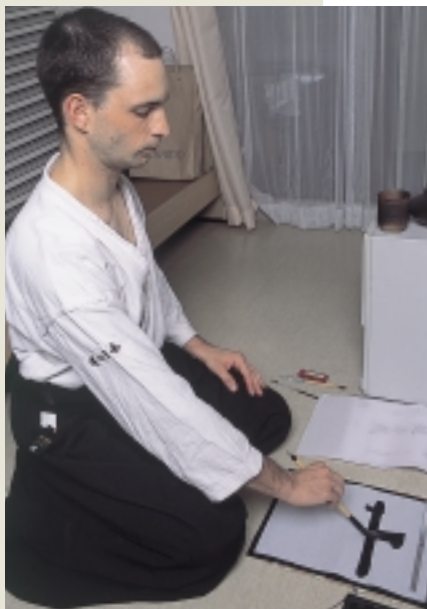
(Date reported: June 26, 2002)

The greenhouse. Here wheat is grown for use in experiments related to genetic information.



The lab. Here Ali and other members exchange views on analyzing data.

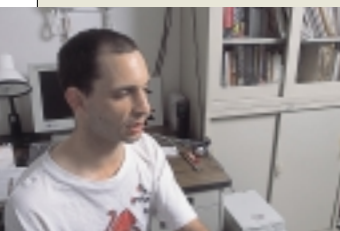
Gernot Hassenpflug



Gernot Hassenpflug

Born in South Africa in 1970.

Presently in the 3rd year of doctoral program at the Graduate School of Informatics, Kyoto University.



Gernot is normally in casual wear, and is friendly and cheerful. Carefully choosing his words, he talked enthusiastically about calligraphy and martial arts.

Gernot practicing calligraphy with the master and fellow classmates watching. Although he is left handed, he holds his brush in his right hand.



Amenotakemusujuku Aikido Dojo

I am attracted to the spirit that lies behind the art of calligraphy and martial arts.

His brush tip freshly soaked in India ink is held aloft a moment before being touched to the rice paper (special Japanese paper used for calligraphy). It is held there as if by an invisible force. Once in contact with the paper it moves slowly, sensuously, as if reveling in the texture—seeming like a creature with a will of its own. The full energy and awareness of his body is focused on the brush tip. The effort creates sweaty palms among those of us watching.

"Welcome. Please come in." Even on short notice Gernot greets his visitors warmly. Neatly arranged on the floor of his one-room apartment are an inkstone, brushes, and rice paper. "To practice calligraphy, one should always assume a good posture." Wearing a traditional *hakama*, he sits upright on his heels on the hard floor. Closing his eyes, he takes a deep breath and focuses his mind. The air is laden with deep concentration and anticipation. The brush makes slow, broad, simple strokes. This is different somehow from regular calligraphy. We find out that he studies aikido and calligraphy at the same dojo (practice hall). Allaying our astonishment at what seems an unusual combination, we are told, "Both require perfect form: fully attentive posture and attitude. With it one can draw any character, or handle attackers from any direction."

Gernot was born in Cape Town, South Africa. He holds a Master's degree in electrical engineering from the University of Cape Town. One day in a liberal arts building that he rarely set foot inside he happened to see a poster seeking students to study in Japan on a Japanese government scholarship. He immediately sat down to fill out an application. "I remember being very excited at the prospect of a long-held dream of mine being fulfilled." He had harbored an interest of this faraway land through the

study of karate and aikido. Training in karate since a junior high school student, Gernot took up aikido at university, attaining the level of black belt, first dan. In South Africa, he is qualified to teach aikido. Yet he always felt that something was missing. "I wanted to learn the 'philosophy' behind the technique." After arriving in Japan, he finally experienced teachings of "*ki*" (active energy)—the "spirit of martial arts." This exposure to new insights has also had a positive effect on his research. "I gained the strength of spirit to carry through research on my own no matter what situation arises." Currently he is a member of Prof. Fukao's lab at the Radio Science Center for Space and Atmosphere, performing research using radar to observe and analyze the Earth's atmosphere. He was present at the launch of an observation rocket just two weeks ago.

After three days we visit him at the *Amenotakemusujuku* Aikido Dojo. The dojo master Seiseki Abe, though 89 years of age and slight of build, has a distinctive, dignified and commanding presence. The dojo is filled with 30 or so students and the first half of the session is devoted to the practice of aikido. Though it seems he hardly touches his opponents, they go flying left and right. Gernot watches him intently. For the second half of the session, the mats are covered for calligraphy practice. Seiseki Abe explains the difference between "*ki*" energy and brute force. "Forcing the brush over the paper is painting; releasing the tension from your shoulders and moving the brush from the force of "*ki*" is true drawing." Gernot is called upon to take the brush in front of the other students. This time he shows no sense of strain. With a serious face he establishes a natural breathing rhythm and slowly draw the brush over the paper. The moment he is done, applause breaks out.



Gernot directly receiving Seiseki Abe's guidance.

In the future Gernot intends to be involved in research on global environmental issues. The teachings he has experienced in Japan will certainly be an important strength to him in the future.

(Date reported: August 20&23, 2002)

Exploring Japanese society and culture – A sociological survey and the *Gion Matsuri*



Twenty international students came to Kyoto University in September 2001 on Japanese government scholarships to participate in the Japanese Studies Program. They studied Japanese society and culture for one year, visiting cultural institutions and events, and attending lectures. As part of the Japanese Language and Culture Seminar, which was a component of the program, they carried out a sociological survey. The theme of the survey was aspects of Japan they had an interest in or curiosity about, and each participant later presented a report on what had been discovered. The seminar was also participated in by Japanese students, and they worked together with the international students in the carrying out of the survey. The date scheduled for the students to present their findings was July 22, 2002.

The students were organized into five groups, each of which administered a questionnaire on a different topic. The five topics were "diets," "the family," "fads," "education," and "cross-cultural communication." The survey data was summarized in graphs and tables, and the software SPSS* used to perform analysis. This provided the participants with hands-on experience with basic sociological survey techniques. The "diets" group examined the theme "Why do people go on diets?" They distributed questionnaire forms to more than 200 students. During their presentation they reported on the survey findings and each of the five group members discussed the results of the analysis from his or her own perspective. For example, Nguyen Thuy Dung, an international student from Vietnam, focused on differences in consciousness related to dieting between men and women and between students at different universities. Tomofumi Kinugawa, a Japanese student who was a member of the same group,

reported on the relationship between dieting and gender awareness. After each presentation, the seminar's advisor, Associate Prof. Shinzo Araragi, added his own opinions and questions. He is an animated speaker, and helped to make the presentations lively affairs.

The project provided the international students with an opportunity to deepen their understanding of Japanese society and culture, as well as an opportunity for the Japanese students to reexamine aspects of Japan. Above all, the international students and Japanese students were able to gain a better understanding of each other by working together on common themes and formulating a set of conclusions.

On July 17, five days before this class, the students went to see the *Gion Matsuri*, one of Kyoto's most famous summer festivals. This was the day of the *Yamahoko Junko* or parade of floats, which is the climax of the one-month festival. Unfortunately, it rained, but the international students nevertheless seemed to enjoy this unusual event. Gabriela Kowal, an international

student from Poland, says she climbed onto one of the *hoko* floats winding its way through the town. "It was much higher up there than I expected. I was a little scared, but it was still fun. I've begun to love Japanese festivals; they're so lively and the whole town participates," she observed.

By participating alongside Japanese people in a traditional festival like this, in addition to the seminar, the international students were deepening their attachment to Japan and building friendly relations with the Japanese. More than knowledge, this feeling for the "heart" of Japan is probably the biggest thing they will bring away from their year here. And this accumulation of goodwill will surely become a precious commodity for Kyoto University as well. The present group of international students are scheduled to return to their home countries in September, taking their deepened understanding and newfound interests with them.

*SPSS (Statistical Package for Social Science) is the most widely used software package for analyzing sociological survey data.



The people of Kyoto who make the *Gion Matsuri* possible. The districts of the city that currently tend the *hoko* floats are concerned at the shortage of young



people to carry on the tradition. As a solution, they are working to get more people interested in the festival.



The parade of *hoko* floats decorated with their magnificent tapestries. Kyoto University students sometimes assist in towing the floats (above). Undaunted by the rain, the international students take photos (left).



The seminar. The class is held in one of Kyoto University's oldest buildings, a lecture theater built in 1889 and since renovated.



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P R O M E N A D E

京都逍遙

五山の送り火

Gozan Okuribi Kyoto University has witnessed the annual *Daimonji* bonfire for over a century

Each year, at 8:00 p.m. on August 16, five fires in the shapes of enormous Chinese characters and other forms are lit on the five mountains surrounding the city of Kyoto. Called *Gozan Okuribi* and associated with the Buddhist festival of the dead known as *Obon*, these fires are intended to see off the spirits of departed ancestors as they return to the other world. Although there are contradicting theories regarding its origin, it is often said that the custom began during the Muromachi period (1336–1573). The traditions regarding each character and form are passed on from generation to generation among longtime residents of the local community. Today, members and volunteers of the *Daimonji* Preservation Committee are responsible for the fires. Associate Prof. Shuichi Miyazaki, from the Academic Center for Computing and Media Studies, is one of the volunteers on the committee. In the harsh winter winds that blow in February, he has cut pine trees, split logs, and prepared the prayer sticks of wood known as "*gomagi*" (on which one writes prayers in memory of ancestors, for the long healthy life of those living, or for other causes) for the Buddhist rite.

From Kyoto University you can view all five mountains once the bonfires are lit, with the magnificent 大, *dai* (large) character being the closest and most visible. At 8:00 in the evening, several hundred people gather on the roofs of school buildings to watch as the *dai* character lights up against the jet black surface of the mountain. Next, the characters 妙, *myo* and 法, *ho* (excellent law of the Buddha) are formed, followed by *funagata* (a design shaped like a ship) and *hidari dai* (the left 大). Finally comes the lighting of the *torii* (a design shaped like a shrine archway). Both flame lighters and rooftop gatherers alike send their thoughts to their ancestors, as they watch the fires burning bright with awe and reverence.



The *Daimonji* bonfires seen from the rooftop of the Kyoto University Library. According to local legend, 大 represents "person" or "spirit." So the "human form" that appears on Mt. Daimonji, while chanting 妙 and 法, rides a ship around the mountains. Its appearance is reflected in a mirror (as the left 大), and at last it passes through the *torii* shrine gate and returns to the abode of the spirits.



Fire grates for the *Daimonji* bonfires and a panoramic view of the city of Kyoto. On the day of the bonfires, wood is stacked on these and lit. "Unless the fire is lit well, it does not have the power to send off the spirits of the ancestors," says *Daimonji* Preservation Committee Deputy Director Shuji Hasegawa.



The *gomagi* shop at the place from which the ascent of Mt. Daimonji is made.



Every year on the day before the bonfires are lit, interested faculty members from Kyoto University climb Mt. Daimonji. This year, about 20 people set out for the peak at 6:00 p.m.